AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1-56. (Canceled)

57. (Withdrawn) A method of bioconversion using a biocatalyst, which comprises the steps of:

(a) preparing a vector for spore surface display comprising a gene construct containing a gene encoding a display motif and a gene encoding the biocatalyst, wherein, when expressed, the gene construct expresses the display motif and the biocatalyst in a fusion form and the biocatalyst is displayed on a spore surface;

(b) transforming a host cell with the vector for spore surface display;

(c) displaying the biocatalyst on the spore surface of the host cell;

(d) recovering the spore displaying on its surface the biocatalyst; and

(e) performing the bioconversion reaction using the spore displaying on its surface the biocatalyst.

58. (Currently Amended) A method of bioconversion in organic solvent system using a β-galactosidase ~~biocatalyst~~, which comprises the steps of:

(a) preparing a vector for displaying on the spore surface comprising a gene construct from pCrylp-CMCase-hp and a gene encoding the β-galactosidase, wherein, when expressed, the gene construct expresses the display motif and the β-galactosidase in a fusion form, displaying on its surface ~~transforming a host cell harboring a genetic carrier selected from the group consisting of spore and virus with a vector containing a gene encoding the biocatalyst~~;

(b) ~~culturing the transformed~~ transforming a host cell with the vector for displaying on the spore surface ~~and expressing the biocatalyst in the host cell~~;

(c) displaying the β-galactosidase on the spore surface of the host cell with noncovalent bond~~allowing to form noncovalent bonds between the expressed biocatalyst and a surface of the genetic carrier so that the biocatalyst is displayed on the surface of the genetic carrier~~;

(d) recovering the ~~genetic carrier~~ spore displaying the β-galactosidase on its surface ~~the biocatalyst~~; and

(e) performing the bioconversion reaction in organic solvent system using the ~~genetic carrier~~ spore displaying the β-galactosidase on its surface ~~the biocatalyst~~.

59. (Currently Amended) The method according to claim [[57 or]] 58, wherein the spore is derived from a spore-forming Gram negative bacterium including *Myxococcus,* a spore-forming Gram positive bacterium including *Bacillus*, a spore-forming *Actionmycete*, a spore-forming yeast or a spore-forming fungus.

60. (Currently Amended) The method according to claim [[59]] 58, wherein the spore is derived from a spore-forming Gram positive bacterium.

61. (Previously Presented) The method according to claim 60, wherein the spore is derived from *Bacillus*.

62. (Withdrawn) The method according to claim 57, wherein the display motif is derived from a spore coat protein.

63. (Withdrawn) The method according to claim 62, wherein the spore coat protein is selected from the group consisting of CotA, CotB, CotC, CotD, CotE, CotF, CotG, CotH, CotJA, CotJC, CotK, CotL, CotM, CotS, CotT, CotV, CotW, CotX, CotY, CotZ, SpoIVA, SspoVID and SodA.

64. (Withdrawn) The method according to claim 62, wherein the spore coat protein is a modified form of one selected from the group consisting of CotA, CotB, CotC, CotD, CotE, CotF, CotG, CotH, CotJA, CotJC, CotK, CotL, CotM, CotS, CotT, CotV, CotW, CotX, CotY, CotZ, SpoIVA, SspoVID and SodA, in which the modified form has a more compatibility for spore surface display relative to wild type spore coat protein.

65. (Withdrawn) The method according to claims 64, wherein the modification of the spore coat protein is obtained by mutating a gene encoding the spore coat protein according to a method selected from the group consisting of DNA shuffling method, StEP method, RPR method, molecular breeding method, ITCHY method, error-prone

PCR, point mutagenesis, nucleotide mutagenesis, combinatorial cassette mutagenesis and other suitable random mutagenesis.

66. (Withdrawn) The method according to claim 63 or 64, wherein the spore coat protein is CotE or CotG.

67. (Withdrawn) The method according to claim 57, wherein the surface motif is derived from randomly-synthesized peptides.

68. (Withdrawn) The method according to claim 57, wherein the surface motif is a peptide or polypeptide selected from a natural-occurring random library.

Claim 69. (Canceled)

Claims 70-72. (Canceled)

73. (Withdrawn) The method according to claim 57, wherein the fusion form of the display motif and the biocatalyst has an order of the display motif-the biocatalyst or the biocatalyst-the display motif.

Claim 74. (Canceled)

75. (Currently Amended) The method according to claim [[57 or]] 58, wherein the β-galactosidase ~~biocatalyst~~ exhibits one or more stability selected from the group consisting of thermal stability, pH stability, a resistance to organic solvent, stability to high-concentrated salt and stability to dry, in which the stability of the β-galactosidase ~~biocatalyst~~ is enhanced compared to a free form enzyme ~~biocatalyst~~.

Claim 76. (Canceled)

Claim 77. (Canceled)

78. (Withdrawn) The method according to claim 58, wherein the virus is a bacteriophage.

Claim 79. (Canceled)

Claim 80. (Canceled)

Claims 81-84. (Canceled)